Kenneth A. Harris Jr., State Oil and Gas Supervisor



Department of Conservation Division of Oil, Gas, and Geothermal Resources 801 K Street • MS 18-05 Sacramento, CA 95814 (916) 445-9686 • FAX (916) 319-9533

June 30, 2016

Mr. Larry D. Kennedy Jr. Director, Reservoir Engineering Pacific Gas and Electric Company 6121 Bollinger Canyon Road San Ramon, CA 94583 Ldk7@pge.com

SENT VIA U.S. MAIL AND EMAIL

Dear Mr. Kennedy:

This letter summarizes discussions between regulators at the Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) and Pacific Gas and Electric Company (PG&E) regarding recent low-level methane emissions at the McDonald Island Gas Storage Facility in San Joaquin County (Facility).

These low-level emissions were discovered during a recent PG&E inspection, which is now required as part of new emergency gas regulations issued last February by DOGGR. After being notified of these low-level emissions earlier this month, flyovers were commissioned by the California Energy Commission and later by PG&E to confirm and measure the emissions. The data obtained from these flyovers show a very low release ranging from 236 kg/hr. to 763 kg/hr., which is similar to or only slightly above background levels at natural gas storage facilities. For context, the emissions at the Aliso Canyon Gas Storage Facility peaked at over 60,000 kg/hr. before that leak was fixed.

It is our understanding that ten wells with detectable methane emissions have been identified at the Facility, and two of these wells (Whisky Slough #3E and Turner Cut 7N) now have been isolated from the reservoir. Increased readings are most prevalent in the conductor pipe annulus outside of the surface casing.

While the emissions levels are low, given the number of wells with detectable methane emissions, DOGGR has directed PG&E to test all wells at the Facility.

The testing requirements follow a regimen developed in coordination with technical experts from Lawrence Berkeley and Sandia National Laboratories to help ensure the safe operation of all natural gas storage wells. This regimen was required at the Aliso Canyon Gas Storage Facility in Order Number 1109 issued on March 4, 2016 and is enclosed for your guidance and reference. PG&E must submit a plan by close-of-business July 5, 2016 that identifies how it will conduct Steps 1 and 2 of the enclosed testing requirements to identify the source of the methane emissions and the corrective action PG&E will take. Following completion of this work, DOGGR will meet with PG&E to discuss completing the remaining steps of this comprehensive safety review of all wells at the Facility.

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DOGGR staff will continue to work on site at the Facility and will oversee all well testing processes. While it is our understanding that other local and state agencies and elected officials have been notified of these emissions, as work continues at the Facility, PG&E must continue to provide updates to the appropriate agencies and the public at large.

Sincerely,

Kenneth A. Harris Jr./ State Oil and Gas Supervisor

Enclosure

cc: [sent via email)

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